HEPATITIS B AND HAEMOPHILUS IMMUNIZATION PROGRAMS (ALASKA)

Indian Health Service

Preventive Health	2000 Actual	2001 Appropriation	2002 Estimate	2002 Est. +/- 2000 Actual	2002 Est. +/- 2001 Approp.
Hepatitis & Haemophilus Influenza Immunization Program (Alaska)					
Budget Authority	$1,402,000	$1,471,000	$1,526,000	+$124,000	+$55,000
Services Provided					
IHS Operated:					
* # hepatitis patients given clinical care.	2,500	2,900	2,900	+400	0
# chronic carriers surveyed.....	1,482	1,492	1,492	+10	0
** # patients immunized: Hepatitis A/B.	6,900	8,400	8,400	+1,500	0
# Hepatitis C patients followed.....	650	800	900	+250	+12.5 percent
•Evaluate long-term protection of Hep. A vaccine.....	150	400	400	+250	0
•Evaluate need for hepatitis B booster doses:					
Infants/Children.	1,482	1,982	1,982	+500	0
Adults.....	2,800	3,000	3,000	+200	0
Immunization Records Audited:...	2,000	3,000	3,000	+1,000	0
# Trained in RPMS software:.....	65	75	90	+25	+20 percent
***Purchases of vaccine (adult):					$0
Hepatitis A...	$50,000	$50,000	$50,000	$0	$0
Hepatitis B...	$50,000	$50,000	$50,000	$0	

*These patients have diagnostic exams and procedures performed by hepatitis program staff at rural field clinics and at Alaska Native Medical Center.

**These figures represent patients immunized in hepatitis A/B studies, and adult vaccination with program-purchased vaccine. Changes in figures represent hepatitis A vaccination of adults with chronic hepatitis C infection.

Individual Native tribal corporations and State Public Health Nurses provide Childhood vaccines, including Hib vaccine.

***These figures represent the purchase of adult Hepatitis A and B vaccines agreed upon in the Alaska compacting tribes funding agreement with IHS. Hepatitis B vaccine is offered to any susceptible Alaska Native adult. Hepatitis A vaccine is offered to non-immune adults in high-risk groups.

PURPOSE AND METHOD OF OPERATION

The Viral Hepatitis Program (Hepatitis B Program) and the Immunization (Hib) Program are distinct programs of the Alaska Native Tribal Health Consortium (ANTHC).

Tribal Contracts:	
Bristol Bay Health Corp.	133,000
Yukon Kuskokwim Health Corp.	228,500
Total	361,500

Tribal Shares: The 2001 budget is 100 percent tribal-administered in the Alaska Tribal Health Compact, and an agreement by Annual Funding Agreement to support the activities and personnel described below:

Hib Immunization	295,000
Hepatitis	840,400
Total	1,135,400
TOTAL Tribal Contracts and Shares	1,496,900

Viral Hepatitis Program

The objective of the Viral Hepatitis Program is to deliver comprehensive hepatitis A, B and C control services to Alaska Natives. The Hepatitis B Program began in 1982 to stop the spread of hepatitis B in Alaska Natives by mass immunization, and to prevent premature death in chronically infected persons by early liver cancer detection. Since 1990 the Program has expanded to include control of hepatitis A infection, detection and control of hepatitis C infection, and identification and research into non-A, B, C, hepatitis infection.

Current activities of the Viral Hepatitis Program include:

- provision of hepatitis B vaccine for susceptible Alaska Native adults, and new Alaska IHS employees,
- continuation of four long-term immunogenicity and efficacy studies to determine when booster hepatitis B vaccine doses are planned,
- surveillance of 1,500 chronic hepatitis B carriers twice yearly for early liver cancer detection (detecting 34 patients with hepatocellular cancer), and for the development of potentially treatable chronic hepatitis.
- studies on the long-term immunogenicity of hepatitis A vaccine in infants and children and adults,
- Hepatitis A vaccination of high risks Alaska Native adults including those with chronic liver disease and injectable drug users.
- provision of hepatitis A vaccine to 2 to 18 year old children using vaccine provided by the State of Alaska,
- development and administration of a Statewide system of surveillance that assures appropriate care of persons chronically infected with hepatitis C,
- development of anti-viral strategies for hepatitis C infections, including initiating study on 500 adults chronically infected with hepatitis C to determine the clinical course and develop preventive and treatment strategies including the use of anti-viral medications,
- collaboration with other agencies to identify additional hepatitis viruses and develop prevention and treatment strategies,
- provision of hepatitis field clinics in rural areas, and education to health providers and patients,
- studies using new antiviral drugs to treat hepatitis C, and
- Implementation of 3 model "look back" programs to screen persons at high risk for exposure to hepatitis C who had a history of receiving blood products or have used injectable drugs in the past. Program will involve up to 4,000 Alaska Natives.

Hib Immunization Program

The objective of the Haemophilus influenza Type B (Hib) Immunization Program is to provide resources, advocacy, training, immunization tracking and coordination of immunization delivery services among Alaska Native tribal programs in order to achieve and maintain high levels of on-time immunization, required to eliminate Hib and other vaccine-preventable diseases in Alaska Natives. Before the advent of Hib vaccines in the late 1980s, Alaska Natives had record rates of Hib meningitis, 6 - 10 times those of other U.S. populations, with a preponderance of disease in young infants. The Program was implemented to prevent Hib disease in Alaska Native infants with on-time immunization. In 1992 the Program objective was expanded include achieving high on-time immunization levels for all recommended childhood vaccines, at 2, 4, 6, 12, and 24 months of age. With the decrease in Hib disease, pneumococcus has emerged as the most common cause of meningitis and blood infections in Alaska Native infants and children who have a rate of pneumococcal disease 4 times that in non-Alaska

Natives. In January 2001, pneumococcal conjugate vaccine was added to the infant vaccine schedule. The Program has educated providers, developed training materials, developed a promotional poster, and updated immunization software to encourage the use of pneumococcal conjugate vaccine.

The current strategies utilized by the Program are:

Assessment. Regular immunization audits with tribal contractors to monitor progress toward achieving immunization goals and identify problems in vaccine delivery. Development of computerized immunization records in each tribal program, to improve recall of patients and assessment of immunization rates.

Training and Feedback. Annual training for regional immunization coordinators; periodic vaccine updates to clinical directors, pharmacists, and health providers; regular training of Community Health Aides and development and distribution of vaccine training materials. Training, promotion and consultation for implementation of universal vaccination with the new pneumococcal conjugate vaccine.

Computerized Immunization. Registry/GCPR - principal consultants and trainers IHS-wide for the computerized IHS immunization software package, released IHS-wide in December 1999. Consultant on software revision Version 7.1. IHS immunization consultant for the Government Computerized Patient Record (GCPR) project.

Advocacy/Coordination with the State. There are regular meetings with the State of Alaska Immunization Program to promote vaccine policies that optimize disease prevention in Alaska Natives, and to achieve a unified immunization schedule for the State.

Vaccine Promotion. - Development of vaccine promotional materials and coordination of regional and statewide efforts to promote timely vaccination, of children and increase adult vaccination. We received a CATCH planning grant from AAP to develop infrastructure to improve immunization rates in rural Alaska.

Vaccine Purchase. Purchase of vaccines not supplied by the State of Alaska Immunization Program (e.g., MMR for 2nd dose in 1992-1996, Influenza to cover shortfall of State vaccine), and PedvaxHIB in 1996-7 to replace the State-provided vaccine shown to be less effective in young Alaska Native infants).

Respiratory syncytial virus (RSV) Prophylaxis Project. Surveillance of RSV hospitalization through Arctic Investigations Program - Centers for Disease Control (AIP-CDC); a study at AIP-CDC to evaluate the impact of using RSV monoclonal antibody to prevent RSV hospitalizations in high-risk infants; and a cohort study through AIP-CDC and collaborators to evaluate the effect of early RSV hospitalization on development of chronic lung disease and asthma in childhood.

Disease Surveillance and Analysis. - Analysis of AIP-CDC surveillance data on pneumococcus and Hib enabling us to detect and respond to changes in disease patterns; collaboration with AIP-CDC to monitor the impact of infant vaccination on disease and nasopharyngeal carriage; proposal to

study the impact of pneumococcal vaccine in preventing disease in elders and promote pneumococcal vaccination of adults.

The Viral Hepatitis Program has been recognized as the national and international leader in the prevention and control of viral hepatitis, and communicable disease experts worldwide are monitoring its performance.

ACCOMPLISHMENTS

Since its beginnings, in 1982, the Viral Hepatitis Program has reached all the high-risk villages in Alaska and has the potential for eradicating hepatitis B. By 1988 the majority of Alaska Natives were immunized against hepatitis B, if not previously infected. More than 96 percent of Alaska Native newborns receive a dose of hepatitis B vaccine before hospital discharge. The annual incidence of acute symptomatic hepatitis B infection has decreased from 215 per 100,000 prior to 1982, to 5 per 100,000. The 1-year case-fatality rate for primary liver cancer has decreased from 100 percent to 50 percent. In FY 2002 liver function tests will be added to the semiannual screening test for liver cancer (AFP) to identify patients with severe asymptomatic hepatitis who could be candidates for newly licensed antiviral medications to prevent end stage liver disease and need for subsequent liver transplantation.

Since 1989 the Program has conducted studies on the immunogenicity, safety and efficacy of hepatitis A vaccine in infants and adults. In 1993 the program, in collaboration with the State of Alaska and four regional Native health corporations, conducted a project that demonstrated that one dose of hepatitis A vaccine could halt a large outbreak of hepatitis A. The Program is now conducting studies of the effectiveness of hepatitis A vaccine in infants. Other recent accomplishments include initiation of studies on hepatitis B boosting and long-term immunogenicity of hepatitis A vaccines, and the development of a cancer detection program for persons chronically infected with hepatitis C. The latter has involved development of a registry of persons with hepatitis C, currently approaching 1000 Alaska Natives, and the development and implementation of a plan to screen Alaska Natives at high risk for hepatitis C (persons who received blood transfusions or had cardiac surgery prior to 1992). In addition, in FY 2001 the program will begin to contact all Hepatitis C infected persons twice yearly for AFP testing to detect liver cancer early and liver function tests to identify potential treatment candidates.

Hib Immunization Program

The Hib Immunization program conducts or reviews audits in 12 Alaska Native regions, which have documented an increase in 2-year old immunization rates in Alaska Natives from 49-73 percent in 1990, to 76-98 percent in 1998-9, with more than 90 percent fully, immunized against Hib disease.

Through expanded immunization tracking in Anchorage the 2-year old immunization rate in Anchorage Alaska Natives increased from 81 percent in 1996 to 94 percent in 2000, while the age-appropriate immunization rate in

3-27 month olds increased from 76 percent to 85-89 percent. The Program continues to provide clinical development, testing and training of the new IHS Immunization software package for the computerized Registration and Patient Management System (RPMS). This package, which provides expanded opportunities for immunization tracking and recall, was completed and released IHS-wide in December 1999and revised in 2000.

The Program has successfully collaborated with the State in a immunization initiative resulting in a state-wide increase in 2-year-old immunization rates according to the National Immunization Survey from 69 percent in 1996 to 81 percent in 1998 (the Alaska Native immunization rate was 87 percent in 1998). The Program assisted with a finalized American Academy of Pediatrics (AAP) statement on Immunizations for American Indians and Alaska Natives.

An emphasis on adult immunizations has resulted in influenza vaccination of >60 percent and pneumococcal vaccination of >80 of elders in at least 1 region (Fall 1999).

The Program collaborated with ÂIP-CDC in studies that justified to the State of Alaska the need for the use of the Hib vaccine, PedvaxHib®, for the first dose. Since instituting this schedule the number of Hib infections has decreased with most cases occurring in under-immunized infants.

In 2000, we completed the first phase of a study to evaluate the effect of early RSV hospitalization on development of childhood lung disease and asthma. Preliminary data shows that children hospitalized with RSV are at higher risk for wheezing illnesses and lower respiratory illnesses until at least 4 years of age. This year's activities include further data collection; report the health board, and development of interventions.

FY 2001 IHS ESTIMATED EXPENDITURE FOR IMMUNIZATIONS

The following method was used to estimate FY 2001 expenditures for immunization services in the IHS. Since the IHS patient care data system is not structured to measure itemized costs for the treatment of various conditions, an indirect method was used to compute this estimate.

Immunization costs were categorized into three target populations. These include infants and children (3 to 27 months of age), adults (greater than or equal to 65 years of age), and the Alaska Immunization project target population. Estimates were calculated for each group as follows:

1. Infants and children: The target population for 2000 was estimated from existing IHS demographic projections as 78,578. An immunization rate for this group is about 88 percent. The cost of vaccine is borne by the Vaccines for Children (VFC) Program. The cost to administer all immunizations over the full series (6 clinic visits at $25 per visit) is $150. The estimated cost for this population segment therefore is $10,372,296.

2. Adults: To estimate the expenditures for adult immunizations, an estimate of the 2000 user population greater than or equal to 65 years of age was used (86,993 persons). Several IHS studies have measured immunization rates for adults at risk at between 30 and 70

percent. The median of 50 percent coverage was used in this estimate, as well as a projected cost for meeting HHS HP 2010 goals of 90 percent coverage. The cost of medication and cost for administration for adult immunization was estimated at $33 ($8 for flu and pneumovax vaccine and $25 for cost of administration). The estimated cost for immunizing this population is estimated to be $1,435,384.

3. Alaska Immunization program: The FY 2001 appropriation for the Alaska immunization program is $1,471,000.

By combining these three groups an estimate of $13,278,680 is calculated for IHS immunization expenditures in FY 2001.

This amount is likely an under estimate for several reasons: 1) Individuals outside these target groups are regular recipients of immunizations (e.g. HBg immunization for health care workers and those at specific risk for other immunizable diseases), however, there is not a good way to estimate the size of these groups; 2) no measure is available for the cost of monitoring (e.g., immunization registries); and 3) no attempt was made to estimate indirect costs or administrative overhead associated with the administration of immunizations, or operation of the immunization program.

PERFORMANCE PLAN

The following performance indicators are included in the National IHS FY 2002 Annual Performance Plan. At this funding level, IHS will be able to accomplish the following:

Indicator 23: During FY 2002, increase the proportion of AI/AN children ho have completed all recommended immunizations for ages 0-27 months (as recommended by Advisory Committee on Immunization Practices) by 1 percent over the FY 2001 level.

Following are the funding levels for the last 5 fiscal years:

Year	Funding	FTE	
1997	$1,328,000	0	
1998	$1,328,000	0	
1999	$1,367,000	0	
2000	$1,402,000	0	
2001	$1,471,000	0	Enacted

RATIONALE FOR BUDGET REQUEST

Total Request -- The request of $1,526,000 is an increase of $55,000 over the FY 2001 enacted level of $1,471,000. The increase includes the following:

Built-in Increases: +$55,000

The request of $53,000 for inflation/tribal pay cost and $2,000 for federal personnel related costs would fund the built-in increases associated with on-going operations. Included is the FY 2002 pay raise and within grade increases.

Maintaining the current I/T/U health system to ensure access and continuity of care is necessary in eliminating disparities in health status between AI/ANs and the rest of the U.S. population.